

1/1  
 GCG CTC GAG GGT ACC GAA TTC GCA CGC GCT CAG CTT AGC GAA CGC ATG ACC CTG GCC AGT  
 A L E G T E F A R A Q L S E R M T L A S  
 61/21  
 GGT CTC AAG ACG AAA GTG AGC GAT ATC TTC TCT CAG GAT GGG TCC TGC CCG GCT AAT ACT  
 G L K T K V S D I F S Q D G S C P A N T  
 121/41  
 GCT GCC ACG GCA GGC ATC GAG AAA GAT ACC GAC ATC AAC GGC AAG TAT GTT GCC AAG GTA  
 A A T A G I E K D T D I N G K Y V A K V  
 181/61  
 ACA ACT GGT GGC ACC GCA GCT GCG TCT GGT TGC ACT ATC GTT GCT ACT ATG AAA GCC  
 T T G G T A A A S G G C T I V A T M K A  
 241/81  
 TCT GAT GTG GCT ACT CCT CTG AGG GGG AAA ACT CTG ACT TTG ACT CTA GGA AAT GCT GAC  
 S D V A T P L R G K T L T L G N A D  
 301/101  
 AAG GGT TCT TAC ACT TGG GCC TGT ACT TCC AAC GCA GAT AAC AAG TAC CTG CCA AAA ACC  
 K G S Y T W A C T S N A D N K Y L P K T  
 361/121  
 TGC CAG ACT GCT ACC ACT ACC ACT CCG  
 C Q T A T T T P

Fig. 1A

1/1	31/11																		
GCG	CTC	GAG	GGT	ACC	GAA	TTC	GCT	CGT	TCG	GAA	GGC	GCA	TCT	GCT	CTT	GCT	TCG	GTC	AAT
A	L	E	G	T	E	F	A	R	S	E	G	A	S	A	L	A	S	V	N
61/21	91/31																		
CCG	TTG	AAG	ACT	ACC	GTT	GAA	GAG	GCG	CTT	TCT	CGT	GGT	TGG	AGC	GTG	AAG	AGC	GGT	ACA
P	L	K	T	T	V	E	E	A	L	S	R	G	W	S	V	K	S	G	T
121/41	151/51																		
GGT	ACA	GAG	GAC	GCT	ACT	AAG	AAA	GAG	GTT	CCT	CTG	GGG	GTG	GCG	GCA	GAT	GCT	AAC	AAA
G	T	E	D	A	T	K	K	E	V	P	L	G	V	A	A	D	A	N	K
181/61	211/71																		
CTG	GGT	ACT	ATC	GCA	CTC	AAA	CCC	GAT	CCT	GCT	GAT	GGT	ACT	GCA	GAT	ATC	ACT	TTG	ACT
L	G	T	I	A	L	K	P	D	P	A	D	G	T	A	D	I	T	L	T
241/81	271/91																		
TTC	ACT	ATG	GGC	GGT	GCA	GGA	CCG	AAG	AAT	AAA	GGG	AAA	ATT	ACC	CTG	ACT	CGT	ACT	
F	T	M	G	G	A	G	P	K	N	K	G	K	I	I	T	L	T	R	T
301/101	331/111																		
GCA	GCT	GAT	GGT	CTC	TGG	AAG	TGC	ACC	AGT	GAT	CAG	GAT	GAG	CAG	TTT	ATT	CCG	AAA	GGT
A	A	D	G	L	W	K	C	T	S	D	Q	D	E	Q	F	I	P	K	G
361/121																			
TGC	TCT	AGG																	
C	S	R																	

**Fig. 1B**

1/1 GCG CTC GAG GGT ACC GAA TTC GCG CGT TCG GAA GGT GCT TCG GCG CTG GCG ACG ATC AAC  
 A L E G T E F A R S E G A S A L A T I N  
 61/21 CCG CTG AAG ACC ACT GTT GAA GAG TCG CTG TCG CGT GGA ATT GCT GGT AGC AAA ATT AAA  
 P L K T T V E E S L S R G I A G S K I K  
 121/41 ATT GGT ACT ACT GCT TCT ACT GCG ACC GAA ACA TAT GCC GGC GTC GAG CCG GAT GCC AAC  
 I G T T A S T A T E T Y A G V E P D A N  
 181/61 AAG TTG GGT GTA ATT GCT GTA GCA ATC GAA GAT AGT GGT GCG GGT GAT ATT ACC TTT ACC  
 K L G V I A V A I E D S G A G D I T F T  
 241/81 TTC CAG ACT GGT ACC TCT AGT CCC AAG AAT GCT ACT AAA GTT ATC ACT CTG AAC CGT ACT  
 F Q T G T S S P K N A T K V I T L N R T  
 301/101 GCG GAT GGG GTC TGG GCT TGT AAA TCT ACC CAG GAT CCG ATG TTC ACT CCG AAA GGT TCT  
 A D G V W A C K S T T Q D P M F T P K G S  
 361/121 GAT AAC  
 D N

Fig. 1C

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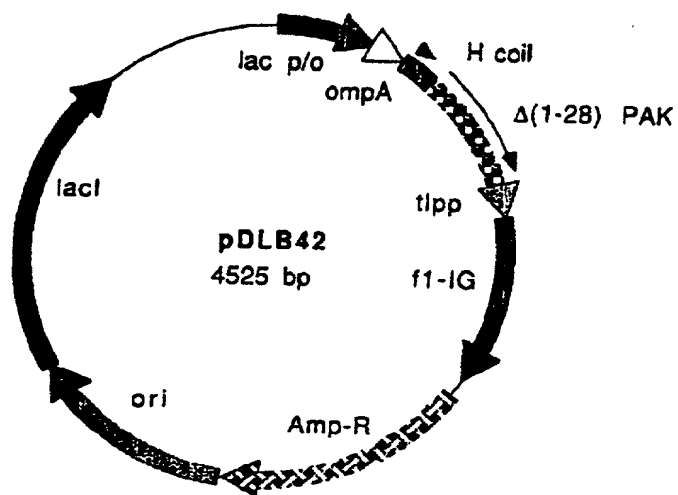
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A L      E G T E A F A R T T Q V T R A V S E V S
61/21
GCG CTG AAG ACC GCT GCG GAG TCG GCG ATT CTG GAA GGG AAG GAG ATT GTT TCC AGC GCG
A L      K T A A E S A I L E G K E I V S S A
121/41
ACT CCT AAA GAT ACC CAG TAT GAC ATT GGC TTC ACC GAG TCT ACT TTG CTA GAT GGT TCT
T P      K D T Q Y D I G F T E S T L L D G S
181/61
GGT AAG AGT CAG ATC CAG GTA ACG GAC AAT AAA GAT GGC ACC GTT GAG TTG GTC GCT ACC
G K      S Q I Q V T D N K D G T V E L V A T
241/81
TTG GGT AAA TCT TCT GGT TCC GCC ATC AAA GGG GCT GTA ATC ACT GTT TCG CGT AAA AAT
L G      K S S G S A I K G A V I T V S R K N
301/101
GAC GGA GTC TGG AAC TGC AAA ATC ACC AAA ACT CCT ACA GCT TGG AAG CCC AAC TAC GCT
D G      V W N C K I T K T P T A W K P N Y A
361/121
CCG GCT AAT TGC CCG AAT TCC
P A      N C P N S

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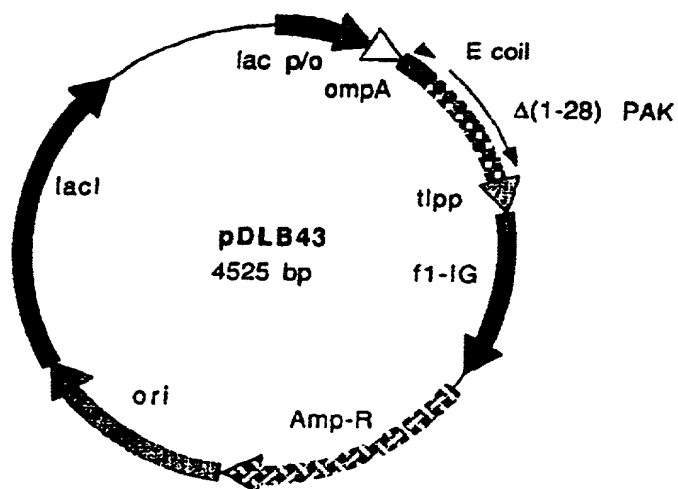
Fig. 1D

1/1	GC	CTC	GAG	GGT	ACC	GAA	TTC	TCT	CGC	TCT	CAG	GTC	TCC	AGG	GTT	ATG	GGC	GAG	GCT	GGC
61/21	A	L	E	G	T	E	F	S	R	S	Q	V	S	R	V	M	A	E	A	G
91/31	TCC	TTG	AAG	ACT	GCA	GTT	GAG	GCC	TGC	CTC	CAG	GAT	GGT	CGT	ACT	GCT	GTG	GGT	ACT	GCT
121/41	S	L	K	T	A	V	E	A	C	L	Q	D	G	R	T	A	V	G	T	A
151/51	GCT	GGT	CAA	TGC	GAT	CCG	GGT	GCG	ACG	GGT	TCC	AGT	TTG	TTG	ACT	GGT	GCT	TCT	CAG	ACT
181/61	A	G	Q	C	D	P	G	A	T	G	S	S	L	L	T	G	A	S	Q	T
211/71	TCT	CAA	ACC	CTG	CCA	ACC	AAT	ACC	GGT	GTT	CCG	CAG	GTT	CTG	GAT	CCT	CTG	ACT	ACT	CAA
241/81	S	Q	T	L	P	T	N	T	G	V	P	Q	V	L	D	P	L	T	T	Q
271/91	ACC	ACT	ATC	ATT	GCG	ACT	TTT	GGT	AAC	GGC	GCA	TCC	GCA	GCT	ATT	TCT	GGC	CAG	ACT	CTG
301/101	T	T	I	I	A	T	F	G	N	G	A	S	A	A	I	S	G	Q	T	L
331/111	ACC	TGG	ACT	CGT	GAT	GTT	AAT	GGT	GGC	TGG	AGC	TGT	GCT	ACT	ACC	GTA	GAT	GCT	AAA	TTC
361/121	T	W	T	R	D	V	N	G	G	W	S	C	A	T	T	V	D	A	K	F
	CGT	CCT	AAT	GGC	TGT	ACT	GAC													
	R	P	N	G	C	T	D													

Fig. 1E



**Fig. 2A**



**Fig. 2B**

DNA sequence 613 b.p. ttctagataacg ...AAGAAGCTTGGG linear

```

86/1                               116/11
gcy ctc gag cac cat cat cac cat ggt ggt ggt ggc gag att gag gcc ctc aag gct gaa
A L E H H H H H G G G G E I E A L K A E
146/21                             176/31
atc gaa gcc cta aag gcc gag ata gaa gca ctt aag gca gag atc gag gcy cta aaa gcy
I E A L K A E I E A L K A E I E A L K A
206/41                             236/51
gaa ata gag gct ctg aag gca ggc ggt gga gga gaa ttc GCT CGT TCG GAA GGC GCA TCT
E I E A L K A G G G G G E F A R S E G A S
266/61                             296/71
GCT CTT GCT TCG GTC AAT CCG TTG AAG ACT ACC GTT GAA GAG GCG CTT TCT CGT GGT TGG
A L A S V N P L K T T V E E A L S R G W
326/81                             356/91
AGC GTG AAG AGC GGT ACA GGT ACA GAG GAC GCT ACT AAG AAA GAG GTT CCT CTG GGG GTG
S V K S G T G T E D A T K K E V P L G V
386/101                           416/111
GCG GCA GAT GCT AAC AAA CTG GGT ACT ATC GCA CTC AAA CCC GAT CCT GCT GAT GGT ACT
A A D A N K L G T I A L K P D P A D G T
446/121                           476/131
GCA GAT ATC ACT TTG ACT TTC ACT ATG GGC GGT GCA GGA CCG AAG AAT AAA GGG AAA ATT
A D I T L T F T M G G A G P K N K G K I
506/141                           536/151
ATT ACC CTG ACT CGT ACT GCA GCT GAT GGT CTC TGG AAG TGC ACC AGT GAT CAG GAT GAG
I T L T R T A A D G L W K C T S D Q D E
566/161
CAG TTT ATT CCG AAA GGT TGC TCT AGG
Q F I P K G C S R

```

Fig. 3A

DNA sequence 613 b.p. ttctagataacg ... AAGAAGCTTGGG linear

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86/1                               116/11
gcy ctc gag cac cat cat cac cat ggt ggt ggt ggc gag gta tcc gct tta gag aaa gaa
A L E H H H H H G G G G E V S A L E K E
146/21                             176/31
gtt tct gct ctc gaa aaa gag gtc agt gct ctg gaa aaa gag gtg tca gcc ttg gaa aag
V S A L E K E V S A L E K E V S A L E K
206/41                             236/51
gaa gta tca gca ctt gag aag ggc ggt gga gga gaa ttc GCT CGT TCG GAA GGC GCA TCT
E V S A L E K G G G G E F A R S E G A S
266/61                             296/71
GCT CTT GCT TCG GTC AAT CCG TTG AAG ACT ACC GTT GAA GAG GCG CTT TCT CGT GGT TGG
A L A S V N P L K T T V E E A L S R G W
326/81                             356/91
AGC GTG AAG AGC GGT ACA GGT ACA GAG GAC GCT ACT AAG AAA GAG GTT CCT CTG GGG GTG
S V K S G T G T E D A T K K E V P L G V
386/101                           416/111
GCG GCA GAT GCT AAC AAA CTG GGT ACT ATC GCA CTC AAA CCC GAT CCT GCT GAT GGT ACT
A A D A N K L G T I A L K P D P A D G T
446/121                           476/131
GCA GAT ATC ACT TTG ACT TTC ACT ATG GGC GGT GCA GGA CCG AAG AAT AAA GGG AAA ATT
A D I T L T F T M G G A G P K N K G K I
506/141                           536/151
ATT ACC CTG ACT CGT ACT GCA GCT GAT GGT CTC TGG AAG TGC ACC AGT GAT CAG GAT GAG
I T L T R T A A D G L W K C T S D Q D E
566/161
CAG TTT ATT CCG AAA GGT TGC TCT AGG
Q F I P K G C S R

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Fig. 3B

DNA sequence 631 b.p. ttctagataacg ... AGCAAGCTTGGG linear

86/1	116/11
gag ctc gag cac cat cat cac cat ggt ggt ggt ggc gag att gag gcc ctc aag gct gaa	
A L E H H H H H G G G G E I E A L K A E	
146/21	176/31
atc gaa gcc cta aag gcc gag ata gaa gca ctt aag gca gag atc gag gcc cta aaa gcc	
I E A L K A E I E A L K A E I E A L K A	
206/41	236/51
gaa ata gag gct ctg aag gca ggc ggt gga gga gaa ttc GCA CGC GCT CAG CTT AGC GAA	
E I E A L K A G G G G G E F A R A Q L S E	
266/61	296/71
CGC ATG ACC CTG GCC AGT GGT CTC AAG ACG AAA GTG AGC GAT ATC TTC TCT CAG GAT GGG	
R M T L A S G L K T K V S D I F S Q D G	
326/81	356/91
TGC TGC CCG GCT AAT ACT GCT GCC ACG GCA GGC ATC GAG AAA GAT ACC GAC ATC AAC GGC	
S C P A N T A A T A G I E K D T D I N G	
386/101	416/111
AAG TAT GTT GCC AAG GTA ACA ACT GGT GGC ACC GCA GCT CGC TCT GGT GGT TGC ACT ATC	
K Y V A K V T T G G T A A A S G G C T I	
446/121	476/131
GTT GCT ACT ATG AAA GCC TCT GAT GTG GCT ACT CCT CTG ACG GGG AAA ACT CTG ACT TTG	
V A T M K A S D V A T P L R G K T L T L	
506/141	536/151
ACT CTA GGA AAT GCT GAC AAG GGT TCT TAC ACT TGG GCC TGT ACT TCC AAC GCA GAT AAC	
T L G N A D K G S Y T W A C T S N A D N	
566/161	596/171
AAG TAC CTG CCA AAA ACC TGC CAG ACT GCT ACC ACT ACC ACT CCG	
K Y L P K T C Q T A T T T T P	

Fig. 4A

DNA sequence 631 b.p. ttctagataacg ... AGCAAGCTTGGG linear

86/1	116/11
gag ctc gag cac cat cat cac cat ggt ggt ggt ggc gag gta tcc gct tta gag aaa gaa	
A L E H H H H H G G G G E V S A L E K E	
146/21	176/31
gtt tet gct ctc gaa aaa gag gtc agt gct ctg gaa aaa gag gtg tca gcc ttg gaa aag	
V S A L E K E V S A L E K E	
206/41	236/51
gaa gta tca gca ctt gag aag ggc ggt gga gga gaa ttc GCA CGC GCT CAG CTT AGC GAA	
E V S A L E K G G G G E F A R A Q L S E	
266/61	296/71
CGC ATG ACC CTG GCC AGT GGT CTC AAG ACG AAA GTG AGC GAT ATC TTC TCT CAG GAT GGG	
R M T L A S G L K T K V S D I F S Q D G	
326/81	356/91
TCC TGC CCG GCT AAT ACT GCT GCC ACG GCA GGC ATC GAG AAA GAT ACC GAC ATC AAC GGC	
S C P A N T A A T A G I E K D T D I N G	
386/101	416/111
AAG TAT GTT GCC AAG GTA ACA ACT GGT GGC ACC GCA GCT CGC TCT GGT GGT TGC ACT ATC	
K Y V A K V T T G G T A A A S G G C T I	
446/121	476/131
GTT GCT ACT ATG AAA GCC TCT GAT GTG GCT ACT CCT CTG ACG GGG AAA ACT CTG ACT TTG	
V A T M K A S D V A T P L R G K T L T L	
506/141	536/151
ACT CTA GGA AAT GCT GAC AAG GGT TCT TAC ACT TGG GCC TGT ACT TCC AAC GCA GAT AAC	
T L G N A D K G S Y T W A C T S N A D N	
566/161	596/171
AAG TAC CTG CCA AAA ACC TGC CAG ACT GCT ACC ACT ACC ACT CCG	
K Y L P K T C Q T A T T T T P	

Fig. 4B



DNA sequence 610 b.p. ttctagataacg ... CGAAAGCTTGGG linear

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86/1                               116/11
gcg ctc gag cac cat cat cac cat ggt ggt ggt ggc gag att gag gcc ctc aag gct gaa
A L E H H H H H G G G G E I E A L K A E
146/21                             176/31
atc gaa gcc cta aag gcc gag ata gaa gca ctt aag gca gag atc gag gcg cta aaa gcg
I E A L K A E I E A L K A E I E A L K A
206/41                             236/51
gaa ata gag gct ctg aag gca ggc ggt gga gga gaa ttc GCG CGT TCG GAA GGT GCT TCG
E I E A L K A G G G G E F A R S E G A S
266/61                             296/71
GCG CTG GCG ACG ATC AAC CCG CTG AAG ACC ACT GTT GAA GAG TCG CTG TCG CGT GGA ATT
A L A T I N P L K T T V E E S L S R G I
326/81                             356/91
GCT GGT AGC AAA ATT AAA ATT GGT ACT ACT GCT TCT ACT GCG ACC GAA ACA TAT GCC GGC
A G S K I K I G T T A S T A T E T Y A G
386/101                           416/111
GTC GAG CCG GAT GCC AAC AAG TTG GGT GTA ATT GCT GTA GCA ATC GAA GAT AGT GGT GCG
V E P D A N K L G V I A V A I E D S G A
446/121                           476/131
GGT GAT ATT ACC TTT ACC TTC CAG ACT GGT ACC TCT AGT CCC AAG AAT GCT ACT AAA GTT
G D I T F T F Q T G T S S P K N A T K V
506/141                           536/151
ATC ACT CTG AAC CGT ACT GCG GAT GGG GTC TGG GCT TGT AAA TCT ACC CAG GAT CCG ATG
I T L N R T A D G V W A C K S T Q D P M
566/161
TTC ACT CCG AAA GGT TCT GAT AAC
F T P K G S D N

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Fig. 5A

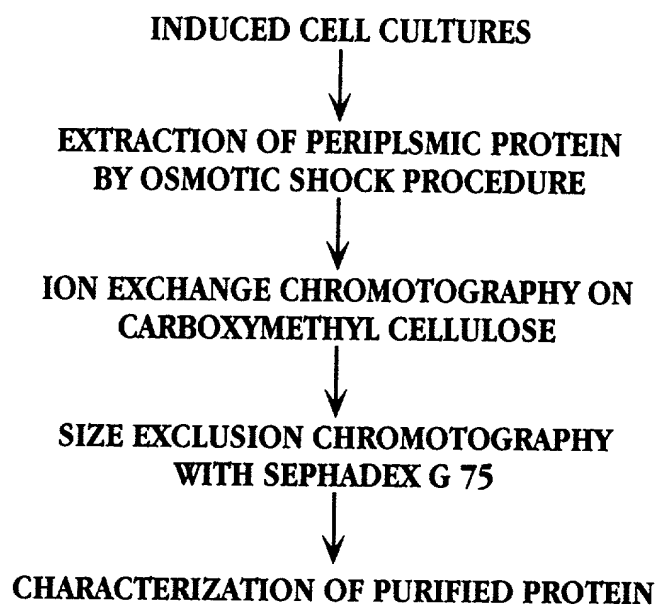
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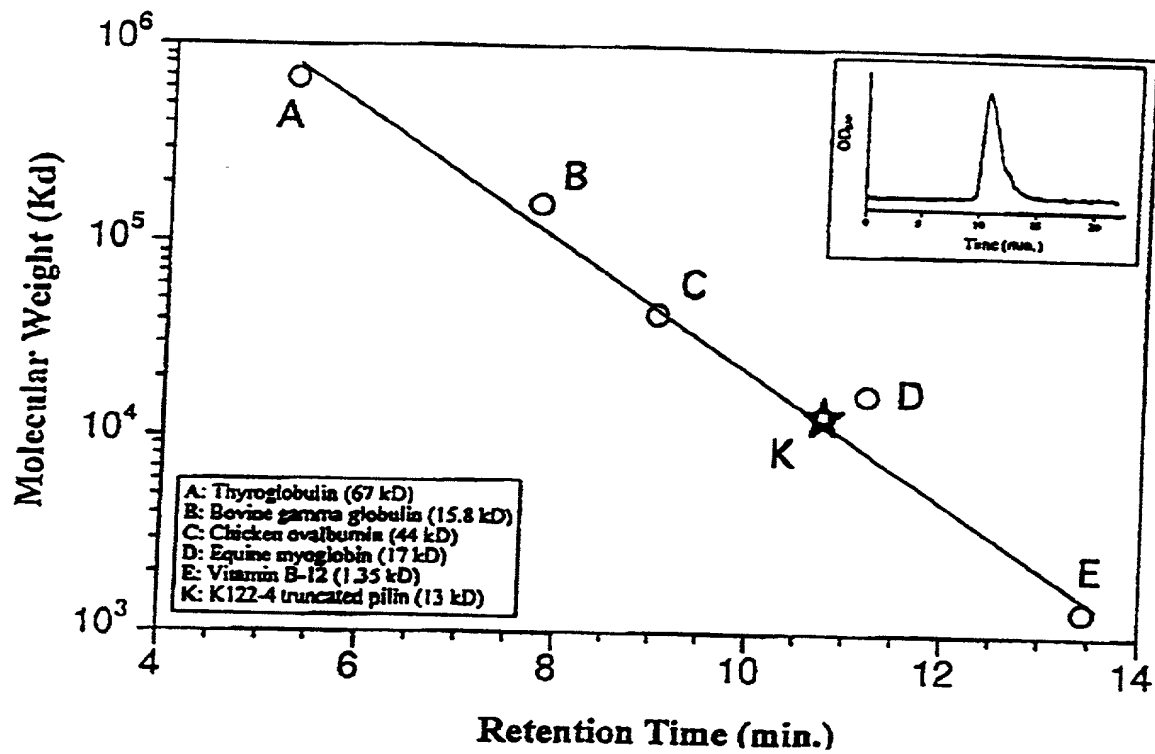
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A L E H H H H H G G G G E V S A L E K E
146/21                             176/31
gtt tct gct ctc gaa aaa gag gtc agt gct ctg gaa aaa gag gtg tca gcc ttg gaa aag
V S A L E K E V S A L E K E V S A L E K
206/41                             236/51
gaa gta tca gca ctt gag aag ggc ggt gga gga gaa ttc GCG CGT TCG GAA GGT GCT TCG
E V S A L E K G G G G E F A R S E G A S
266/61                             296/71
GCG CTG GCG ACG ATC AAC CCG CTG AAG ACC ACT GTT GAA GAG TCG CTG TCG CGT GGA ATT
A L A T I N P L K T T V E E S L S R G I
326/81                             356/91
GCT GGT AGC AAA ATT AAA ATT GGT ACT ACT GCT TCT ACT GCG ACC GAA ACA TAT GCC GGC
A G S K I K I G T T A S T A T E T Y A G
386/101                           416/111
GTC GAG CCG GAT GCC AAC AAG TTG GGT GTA ATT GCT GTA GCA ATC CAA GAT AGT GGT GCG
V E P D A N K L G V I A V A I E D S G A
446/121                           476/131
GGT GAT ATT ACC TTT ACC TTC CAG ACT GGT ACC TCT AGT CCC AAG AAT GCT ACT AAA GTT
G D I T F T F Q T G T S S P K N A T K V
506/141                           536/151
ATC ACT CTG AAC CGT ACT GCG GAT GGG GTC TGG GCT TGT AAA TCT ACC CAG GAT CCG ATG
I T L N R T A D G V W A C K S T Q D P M
566/161
TTC ACT CCG AAA GGT TCT GAT AAC
F T P K G S D N

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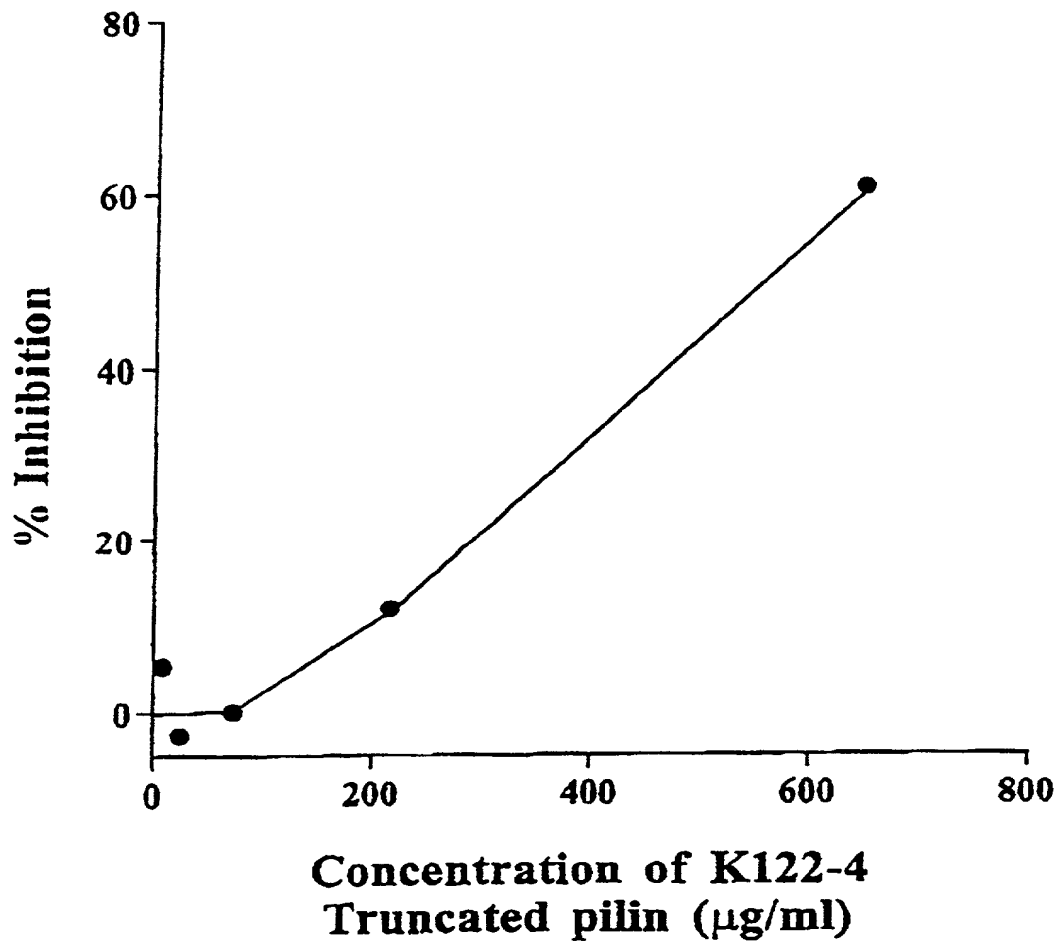
Fig. 5B



**Fig. 6**

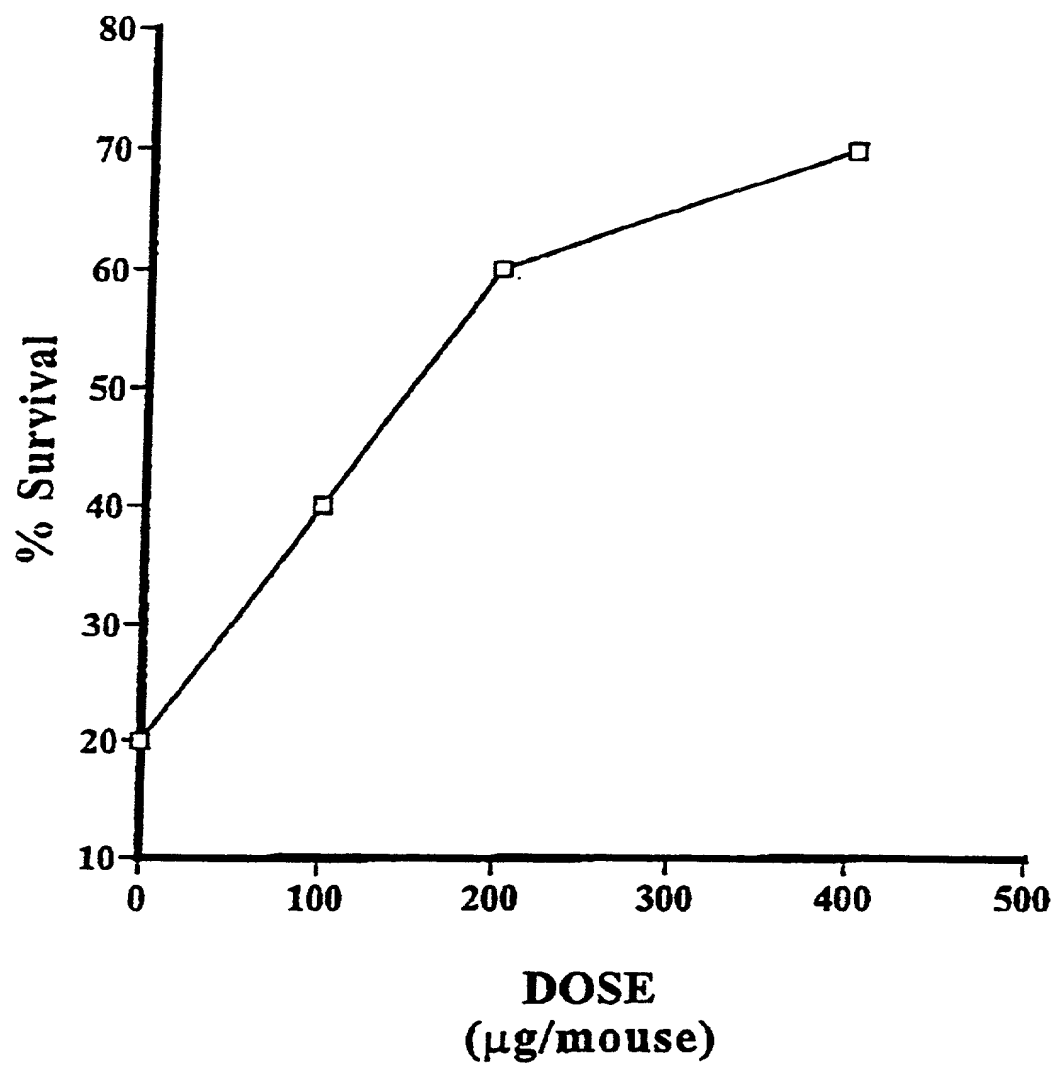
**Fig. 7**

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**Fig. 8**

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**Fig. 9**